

Liquefied Natural Gas – Import / Export Terminal Background

Prior to 2002 There were 4 onshore LNG import terminals operating in the US (Everett, MA; Cove Point, MD; Elba Island, GA; and Lake Charles, LA). There was 1 onshore LNG export terminal in Alaska.

2002 EPA Region 6 approached by Chevron USA to discuss environmental permitting of a terminal similar to Louisiana Offshore Oil Port (LOOP) for the importation of liquefied natural gas. After researching legal basis for the LOOP license (and EPA issued NPDES permit), EPA informed Chevron that the Deepwater Port Act only addressed the importation of crude oil.

Through the Maritime Transportation Security Act, Congress amended the Deepwater Port act, and President G.W. Bush signed on November 25, 2002, to include offshore facilities designed to import natural gas. DOT's Maritime Administration was designated authority to issue, transfer, amend or reinstate a license for the construction and operation of a deepwater port. US Coast Guard designated to lead the NEPA compliance effort. EPA would issue Clean Water Act and Clean Air Act permits for offshore terminals.

2003 Federal Reserve Bank Chairman Alan Greenspan in testifying before the US House Committee on Energy and Commerce said:

In summary, the long-term equilibrium price for natural gas in the United States has risen persistently during the past six years from approximately \$2 per million Btu to more than \$4.50. The perceived tightening of long-term demand-supply balances is beginning to price some industrial demand out of the market...

If North American natural gas markets are to function with the flexibility exhibited by oil, unlimited access to the vast world reserves of gas is required. Markets need to be able to effectively adjust to unexpected shortfalls in domestic supply. Access to world natural gas supplies will require a major expansion of LNG terminal import capacity.

Between 2003 and 2007, 13 additional offshore terminals were proposed to MARAD and 24 additional onshore terminals were proposed to FERC. Eventually, 3 offshore terminals were built (all based on buoy design) and 5 additional onshore terminals were constructed and several of the pre-2002 terminals were expanded. Imports through the onshore and offshore terminals peaked in 2007. Currently, imports have fallen to 1992 levels.

In 2008, the price of imported LNG peaked at \$10.03 Mcf with the price of exported LNG that same year of \$7.69 Mcf. In 2011, the price of imported LNG was \$5.62 Mcf with the price of exported LNG that year of \$ 10.50 Mcf.

2012 Of the existing onshore terminals, Freeport LNG (Quintana Island, TX), Sabine Pass LNG (Sabine, LA), and Cameron LNG (Hackberry, LA) have been authorized to re-export delivered LNG. Golden Pass LNG (Sabine Pass, TX) has an application in to FERC to re-export delivered LNG.

The following onshore terminals have applied to FERC to serve as export terminals: Sabine Pass (Sabine, LA), Freeport LNG (Quintana Island, TX), Corpus Christi LNG (Corpus Christi, TX).

The following sites have been identified by corporate ownership as potential US locations to serve as export terminals: Southern Union (Lake Charles, LA), Cove Point LNG (Cove Point, MD), Jordan Cove (Coos Bay, OR), Cameron LNG (Hackberry, LA) and Gulf Coast LNG (Brownsville, TX).